

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

RONDEVOO TECHNOLOGIES, LLC,
a California Limited Liability,

Plaintiff,

v.

AERNOS, INC.,
a Delaware Corporation,

Defendant.

C.A. No. 19-680-RGA

JURY TRIAL DEMANDED

**AERNOS, INC.'S REPLY IN SUPPORT OF ITS
MOTION TO DISMISS FOR FAILURE TO STATE A CLAIM**

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TABLE OF CONTENTS

	<u>Page(s)</u>
I. <i>ALICE</i> ANALYSIS: THE CLAIMS ARE PATENT INELIGIBLE	1
A. Step 1: The claims are directed to the abstract idea of sensing.	1
B. Step 2: The claims do not contain an inventive concept.....	6
II. OTHER ISSUES	7
A. The Court may rely on representative claims.	7
B. The patent eligibility analysis is the same for the dependent claims as for the independent claims.....	8
C. The Court may rule on Defendant’s Motion without construing the claims.	8
D. The Court should not grant leave to amend because amendment would be futile.	9
III. CONCLUSION.....	10

TABLE OF AUTHORITIES

	<u>Page(s)</u>
Cases	
<i>Aatrix Software, Inc. v. Green Shades Software, Inc.</i> , 882 F.3d 1121 (Fed. Cir. 2018).....	9
<i>Affinity Labs of Tex. v. DirecTV, LLC</i> , 838 F.3d 1253 (Fed. Cir. 2016).....	2
<i>Alice Corp. Pty. Ltd. v. CLS Bank Int’l</i> , 134 S. Ct. 2347 (2014).....	<i>passim</i>
<i>Ariosa Diagnostics, Inc. v. Sequenom</i> , 788 F.3d 1371 (Fed Cir. 2015).....	3, 5
<i>Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)</i> , 687 F.3d 1266 (Fed. Cir. 2012).....	8
<i>Canrig Drilling Tech. Ltd. v. Trinidad Drilling L.P.</i> , No. CIV.A. H-15-0656, 2015 WL 5458576 (S.D. Tex. Sept. 17, 2015).....	5
<i>Cellspin Soft, Inc. v. Fitbit, Inc.</i> , 927 F.3d 1306 (Fed. Cir. 2019).....	9
<i>ChargePoint, Inc. v. SemaConnect, Inc.</i> , 920 F.3d 759 (Fed. Cir. 2019).....	1, 2, 4, 5
<i>Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n</i> , 776 F.3d 1343 (Fed. Cir. 2018).....	7
<i>Evolutionary Intelligence, LLC v. Sprint Nextel Corp.</i> , 137 F. Supp. 3d 1157 (N.D. Cal. 2015), <i>aff’d</i> , 677 F. App’x 679 (Fed. Cir. 2017)	8, 9
<i>Finjan, Inc. v. Blue Coat System, Inc.</i> , 879 F.3d 1299 (Fed. Cir. 2018).....	2
<i>Genetic Techs, Ltd v. Merial LLC</i> , 818 F.3d 1369 (Fed. Cir. 2016).....	3
<i>Immersion Corp. v. Fitbit, Inc.</i> , 313 F. Supp. 3d 1005 (N.D. Cal. 2018)	5
<i>Internet Patents Corp. v. Active Networks, Inc.</i> , 790 F.3d 1343 (Fed. Cir. 2015).....	1

<i>Ironworks Patents, LLC v. Apple Inc.</i> , No. CV 17-1399-RGA, 2018 WL 2944475 (D. Del. June 12, 2018)	5
<i>Jedi Techs., Inc. v. Spark Networks, Inc.</i> , No. CV 1:16-1055-GMS, 2017 WL 3315279 (D. Del. Aug. 3, 2017)	9
<i>McRo, Inc. v. Bandai Namco Games Am. Inc.</i> , 837 F.3d 1299 (Fed. Cir. 2016).....	1
<i>Money Suite Co. v. 21st Century Ins. & Fin. Servs., Inc.</i> , No. CV 13-1747-GMS, 2015 WL 436160 (D. Del. Jan. 27, 2015).....	7
<i>Solutran, Inc. v. Elavon, Inc.</i> , 931 F.3d 1161 (Fed. Cir. 2019).....	2, 3
<i>Ultramercial, Inc. v. Hulu</i> , LLC, 772 F.3d 709 (Fed. Cir. 2014).....	7
<i>Voxathon LLC v. Alpine Elecs. of Am., Inc.</i> , No. 2:15-cv-562-JRG, 2016 WL 260350 (E.D. Tex. Jan. 21, 2016).....	7

Despite the asserted claims’ recitation of the word “device,” the claims of the asserted patents are directed to the abstract concept of sensing—specifically, the claims are directed to sensing such that “each sensor’s electrical characteristic changes when encountering the gas, chemical or biological object.” The law is clear that claims with physical elements may nevertheless be abstract. *See, e.g., ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019) (“[A] specification full of technical details about a physical invention may nonetheless conclude with claims that claim nothing more than the broad law or abstract idea underlying the claims, thus preempting all use of that law or idea.”). The law thus directly counters Plaintiff’s citation to district court cases that suggest a device claim can never be abstract. And though Plaintiff protests that this Court must consider the specification for identifying “something more” at step two of the *Alice* analysis, Plaintiff identifies nothing in the specification showing how any of the other claim limitations are inventive, let alone to counter AerNos’s three-page description of the repeated reference to conventional components in the specification. AerNos respectfully requests that the Court grant its motion to dismiss.

I. ALICE ANALYSIS: THE CLAIMS ARE PATENT INELIGIBLE

A. Step 1: The claims are directed to the abstract idea of sensing.

The *Alice* step one inquiry requires the Court to determine “whether the claims [at issue] focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRo, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). The former are patentable; the latter are not. *Id.*; *see also Internet Patents Corp. v. Active Networks, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015) (holding ineligible claims that contained “no restriction on how the result is accomplished”).

Federal Circuit and Supreme Court law plainly contradicts Plaintiff's argument that the asserted claims directed to a "device" are automatically patent eligible. As AerNos explained in its opening brief, a claim may still be abstract even where there is "a specification full of technical details about a physical invention." *ChargePoint*, 920 F.3d at 769. As the Supreme Court has made clear, a tangible system, such as a computer, does not confer eligibility because this would "make the determination of patent eligibility depend simply on the draftsman's art." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2359 (2014) (quotation omitted). Indeed, the Federal Circuit recently confirmed this by rejecting claims reciting a scanner and computer, which are physical devices, where the claims were actually directed to "the abstract idea of crediting a merchant's account as early as possible while electronically processing a check." *Solutran, Inc. v. Elavon, Inc.*, 931 F.3d 1161, 1166 (Fed. Cir. 2019). The Federal Circuit noted that physical tangible elements are not enough to confirm eligibility, stating "[T]he physicality of the paper checks being processed and transported is not by itself enough to exempt the claims from being directed to an abstract idea." *Id.* at 1168. This precedent makes the district court cases on which Plaintiff relies inapplicable.

As the Federal Circuit has stated, device claims may be patent ineligible where the claims are in fact directed to an abstract idea. Despite Plaintiff's arguments to the contrary, the focus of the claims here is on the abstract concept of sensing, and as such, the claims are directed to an abstract idea. In determining what the claims are directed to, the Federal Circuit has explained that this Court should examine the patent's "'claimed advance' to determine whether the claims are directed to an abstract idea." *Finjan, Inc. v. Blue Coat System, Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018). By focusing on the "claimed advance," the Court can "determine if the claim's character as a whole is directed to excluded subject matter." *Affinity Labs of Tex. v. DirecTV*,

LLC, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quotation omitted). Here, the claims are clearly directed to a sensor whose “electrical [or physical] characteristic changes when encountering the gas, chemical, or biological object.” As such, the characterization of the claims is directly tethered to the claim language. *Solutran*, 931 F.3d at 1168 (finding that the abstract idea tracked the claim language and accurately captured what the patent asserted to be the focus of the claimed advance over the prior art). Though Plaintiff points out that the claims include other limitations, such as layers and arrays, the specification makes it clear that the claimed advance of this invention is a sensor, specifically in the nanoscale context. ’814 Patent at Abstract, 1:18-30 (noting that the invention was driven by Moore’s law, which states that integrated circuit density doubles every eighteen months, and that the problem of integrating analog and RF circuitry in a standard digital semi-conductor was solved through the use of a nano sensor).

Moreover, although Plaintiff disputes that the claims are directed to sensing, it does so conclusorily without providing any other interpretation, and fails to distinguish *AerNos*’s case law. First, the parties agree that *Ariosa* analyzed whether a claim directed to a generic method of detecting a biological object was abstract and held it was. *Ariosa Diagnostics, Inc. v. Sequenom*, 788 F.3d 1371, 1376 (Fed Cir. 2015). The claims here, directed to a sensor whose “characteristic changes when encountering the . . . biological object,” require the same conclusion. Plaintiff’s protests that the claims here are different because they are directed to devices are a red herring. The claims here, like *Ariosa*, recite a generic, conventional, way of detection or sensing. Plaintiff makes similar incorrect arguments for *Genetic Techs, Ltd v. Merial LLC*, 818 F.3d 1369, 1376 (Fed. Cir. 2016), where the claims were directed to detecting a biological object, i.e. a chromosome. Plaintiff’s attempts to distinguish these cases do not explain how claims directed to

sensing/detecting are non-abstract or how its claims are directed to an unconventional way of sensing or detecting.

Plaintiff's arguments for distinguishing AerNos's other Federal Circuit abstract device case law similarly fail. Although Plaintiff argues that *ChargePoint* is distinguishable because that patent was directed to an abstract idea of a problem facing the inventor without providing significant meaningful limitations, Plaintiff also does not identify any meaningful limitations of the Asserted Patents.¹ Plaintiff instead merely repeats that the facts here "are distinguishable, because the Asserted Patents claim a physical, tangible sensing device." As explained above, however, this is contrary to Federal Circuit law. Additionally, as explained in the opening brief, the additions of layers and arrays in the asserted claims are not meaningful limitations on the invention because they are conventional components and do not improve the claimed sensing techniques.

Plaintiff's primary argument for showing that the asserted claims are not an abstract idea under Step 1 is that because the claims are directed to physical devices, they are not ineligible subject matter. Plaintiff did not address AerNos's arguments that the claimed advance is sensing, that the sensing and detecting recited in the claims is merely a conventional result, or that the broad language describing the generic components in the specification are further evidence of an abstract idea. While Plaintiff appears argues the physical configuration in the claims show there is not preemption, the limited description of the physical configurations provides no real constraint on the nano sensor detecting a gas, chemical, or biological object. The Federal Circuit has given less weight to physical descriptions in claims when finding claims to be directed to an

¹ Though Plaintiff has a section in its brief titled "The Claimed Devices Rely on Significant, Material, and Non-Generic Limitations," Plaintiff does not include a single citation to the specification in this section.

abstract idea. For example, in *ChargePoint*, the Federal Circuit found all in eight claims to be “directed to the abstract idea of communicating over a network for device interaction” where the claims described the network for device interaction as having a server, data control unit, charge transfer device, electrical receptacle, electric power line connecting the receptacle to a power grid, and other physical limitations. *ChargePoint*, 920 F.3d at 769, 773. Despite the addition of these physical limitations, the Federal Circuit found the claims preempted “the entire industry’s ability to use networked charging stations.” *Id.* at 770. Similarly, here, the mere addition of a configuration requiring “layers” does little to lessen concerns of preemption over nano sensors for detecting a gas, chemical, or biological agent. Furthermore, “[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics*, 788 F.3d 1371 at 1379.

Additionally, Plaintiff’s cases on the intersection of devices and abstract ideas are distinguishable because in those cases the claims recited improved tangible systems. For example, in *Ironworks Patents, LLC v. Apple Inc.*, the district court found the claims were directed to improved portable devices and mobile stations, and contrasted these claims with claims that were not directed to improved tangible systems. No. CV 17-1399-RGA, 2018 WL 2944475, at *4 (D. Del. June 12, 2018); *see also Immersion Corp. v. Fitbit, Inc.*, 313 F. Supp. 3d 1005, 1024 (N.D. Cal. 2018) (finding claim was not abstract “where the focus of the claim [was] a new and useful application of notification embodied in a physical device”). Similarly, in *Canrig Drilling Tech. Ltd. v. Trinidad Drilling L.P.*, the court noted that although the concept of rotation was abstract in isolation, the claims at issue described an improved process of controlled rotation with predetermined angles to orient and oscillate a drill string for the oil and gas industry. No. CIV.A. H-15-0656, 2015 WL 5458576, at *4 (S.D. Tex. Sept. 17, 2015). Here,

Plaintiff has failed to identify any way in which the claims of the Asserted Patents recite an improved tangible invention or apply an improved method of sensing to something tangible.

In sum, the Federal Circuit has approved of finding claims with physical elements to be abstract. That is no basis for Plaintiff's claims to survive § 101 scrutiny, yet it makes up a large part of Plaintiff's opposition.

B. Step 2: The claims do not contain an inventive concept.

Because the claims are directed to an abstract idea, the Court must next determine whether they recite an inventive concept sufficient to transform them into patent-eligible applications of the idea. *See Alice*, 134 S.Ct. 2355. “The relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea [...] on a generic computer.” *Id.* at 2359. Here, all the claims do is implement the abstract idea of sensing on a generic sensor.

The specification describes the components and manufacture of the nano sensor entirely in conventional terms. Though Plaintiff conclusorily argues that the nano sensor relies on non-generic components, Plaintiff does not identify why or how any of the components in the nano sensor are non-generic. Plaintiff simply repeats that the claims are directed to “concrete and tangible” elements, an argument that goes against hordes of federal case law. Indeed, Plaintiff includes only a single citation to the specification in its entire brief, and this reference is merely two figures without any explanation of how they show significant, meaningful, non-generic, or non-conventional additions. Pl. Resp. (D.I. 15) at 10-11. Plaintiff has therefore provided no response to AerNos's in-depth discussion as to how the components, manufacture, and use of the purported invention are conventional. *See Mot.* (D.I. 8) at 15-18 (noting, with support from the specification, at least that the nano elements are formed in a conventional manner, the active devices are formed using conventional semiconductor processing equipment, the invention

consists of molecular elements that would be obvious to those skilled in the art, and the readout of the device is done through conventional methods). Plaintiff has thus not met its shifted burden in identifying any inventive concept in either the specification or Complaint. *See, e.g., Voxathon LLC v. Alpine Elecs. of Am., Inc.*, No. 2:15-cv-562-JRG, 2016 WL 260350 at *4 (E.D. Tex. Jan. 21, 2016) (“Since the proving of a negative is historically disfavored, once Defendants make a *prima facie* showing that an inventive concept is absent, it falls upon Voxathon to show that there is, in fact, an inventive concept actually present.”).

Furthermore, Plaintiff’s argument that the dearth of novel or nonobvious concepts in the Asserted Patents is better suited to the § 103 obviousness context is contrary to law. An *Alice* analysis requires considering whether any inventive concept in the asserted patents includes additional features that are “more than well-understood, routine, conventional activity.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (quotation omitted). As a court in this District has noted, a novelty argument “is beside the point for a § 101 inquiry.” *Money Suite Co. v. 21st Century Ins. & Fin. Servs., Inc.*, No. CV 13-1747-GMS, 2015 WL 436160, at *3 (D. Del. Jan. 27, 2015).

In sum, Plaintiff has identified no inventive or unconventional concept or feature in the claims or specification. Plaintiff’s opposition fails to identify with particularity how the purportedly inventive aspects of the asserted claims improve any sensing technology or remove the claims from the realm of abstract.

II. OTHER ISSUES

A. The Court may rely on representative claims.

Despite Plaintiff’s opposition, the Court may rely on representative claims in a § 101 analysis where the claims are “*substantially* similar and linked to the same abstract idea,” as they are here. *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d

1343, 1348 (Fed. Cir. 2018) (emphasis added) (affirming dismissal and noting that “addressing each claim of the asserted patents was unnecessary” to find them ineligible under Section 101). While Plaintiff points to minor differences between the independent claims of the Asserted Patents, Plaintiff notably makes no separate patentability arguments. (D.I. 15 at 5). For example, Plaintiff makes no explanation as to how the eligibility analysis is affected by whether a sensor detects when electrical characteristics change as opposed to when physical characteristics change. The Court need not conduct two separate patentability analyses for independent claims relating two conventional, albeit slightly different, sensing methods directed to substantially the same idea.

B. The patent eligibility analysis is the same for the dependent claims as for the independent claims.

Plaintiff accuses AerNos of conclusorily stating that the dependent claims are patent ineligible, but Plaintiff does not provide any argument as to why the dependent claims would be patent eligible if the independent claims were determined to be patent ineligible. (D.I. 15 at 15). In *Evolutionary Intelligence, LLC v. Sprint Nextel Corp.*, 137 F. Supp. 3d 1157, 1166 n.6 (N.D. Cal. 2015), *aff’d*, 677 F. App’x 679 (Fed. Cir. 2017), the court faulted the patent owner for providing “no analysis of how either patent’s dependent claims differ from the independent claims” and therefore would not credit the assertion that the dependent claims recited significant limitations. Same here. *Id.*

C. The Court may rule on Defendant’s Motion without construing the claims.

Claim construction is not required to conduct a § 101 analysis. *See, e.g., Alice*, 134 S.Ct. at 2347 (finding claims ineligible without performing claim construction); *see also Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1272 (Fed. Cir. 2012) (“[W]e perceive no flaw in the notion that claim construction is not an inviolable prerequisite to

a validity determination under § 101.”). Here, no plausible construction of the claims would bring them within the scope of patentable subject matter. Further, Plaintiff has not identified a single claim term that purportedly requires construction and that would affect the § 101 analysis. *See Jedi Techs., Inc. v. Spark Networks, Inc.*, No. CV 1:16-1055-GMS, 2017 WL 3315279, at *6 (D. Del. Aug. 3, 2017) (finding claim construction was not necessary where the plaintiff failed to identify any specific claims which, if scrutinized during claim construction, would impact the § 101 analysis, and granting motion to dismiss).

D. The Court should not grant leave to amend because amendment would be futile.

Plaintiff has identified no amendments it would make to allege eligibility of the claims, and the Court should therefore not grant any request to amend. *Cf. Evolutionary Intelligence, LLC v.* 137 F. Supp. 3d at 1166 n.6 (declining to analyze patentability of dependent claims separately from that of independent claims where patent owner may no specific separate arguments); *Jedi Techs., Inc.*, 2017 WL 3315279, at *6 (declining to construe claims where patent owner did not identify any specific claims to construe that would impact eligibility analysis). Moreover, to the extent Plaintiff makes an “allegation about inventiveness, [that is] wholly divorced from the claims or the specification,” the Court need not consider this allegation. *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1317 (Fed. Cir. 2019).

Plaintiff’s primary case in support of its request to amend, *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1126 (Fed. Cir. 2018), is distinguishable because in that case, the patent owner identified specific allegations it would include in an amended complaint, including providing a proposed second amended complaint, that would directly affect the eligibility analysis. Here, Plaintiff has provided no information on any amendments it would make, including failing to identify any information from the specification showing how the

sensor operates unconventionally or is made of any unconventional components. Because Plaintiff identified no such information in its Complaint or response to the Motion to Dismiss, amendment would be futile and the Court should grant the motion to dismiss with prejudice.

III. CONCLUSION

AerNos respectfully requests that the Court dismiss Rondevoo's Complaint for failure to state a claim upon which relief can be granted. Because leave to amend would be futile, AerNos requests dismissal with prejudice.

Dated: September 17, 2019

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